

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

MEDIEN PATENT VERWALTUNG AG,

Plaintiff,

v.

WARNER BROS. ENTERTAINMENT
INC., TECHNICOLOR INC. and DELUXE
ENTERTAINMENT SERVICES GROUP
INC.,

Defendants.

Civil Action No. 1:10-cv-04119-CM

ECF Case

**DECLARATION OF WILLIAM R. ROSENBLATT ON BEHALF OF PLAINTIFF
MEDIEN PATENT VERWALTUNG AG AND IN RESPONSE TO THE COURT'S
FIRST MARKMAN RULING DATED JANUARY 6, 2012**

I, William R. (“Bill”) Rosenblatt, declare:

1. I am president of GiantSteps Media Technology Strategies Inc., a consulting firm based in New York City (“GiantSteps”). I have been retained by Plaintiff Medien Patent Verwaltung AG (“MPV”) to advise and assist in connection with the above-captioned litigation. This declaration is submitted in response to the Court’s First Markman Ruling dated January 6, 2012 (“First Markman Ruling”) regarding United States Patent No. 7,187,633 (“the ‘633 Patent”) and addresses certain inquiries from the Court made therein.

Educational Background

2. I received a B.S.E degree *cum laude* in Electrical Engineering and Computer Science from Princeton University in 1983. I subsequently received a M.S. degree in Computer and Information Science from the University of Massachusetts in 1990, and I completed coursework and examinations toward a Ph.D in that field at the same university.

Professional Experience

3. Before founding GiantSteps in June 2000, I held IT management positions in two large publishing and media companies: Times Mirror Co. (Director of Publishing Systems, 1994-1996) and McGraw-Hill Cos. (Vice President of Technology and New Media, 1999). In between those two positions, I worked at Sun Microsystems in a series of positions related to the media and publishing market as a pre-sales consultant and market strategist. I began my professional career as a software engineer at Motorola, where I developed software for data communications equipment. Immediately before founding GiantSteps, I was Chief Technology Officer of Fathom.com, an e-learning startup company founded by Columbia University and backed by other institutions such as the London School of Economics, University of Chicago, Northwestern University, New York Public Library, and Cambridge University Press.

4. A large portion of my consulting practice at GiantSteps concerns technologies for addressing copyright infringement, commonly known as “piracy.” I am the author of the book *Digital Rights Management: Business and Technology* (Wiley, 2001), the chapter “Digital Rights and Digital Television” in *Television Goes Digital* (Springer, 2010), and several articles and white papers on technologies including digital rights management (DRM), digital fingerprinting, and digital watermarking, the latter being a technique that involves marking digital media with information to be extracted later (collectively “rights technologies”). One of the white papers I authored is *Content Identification Technologies: Business Benefits for Content Owners* (2008), “content identification” being a term that encompasses digital watermarking and digital fingerprinting.

5. I am the editor of the industry blog Copyright and Technology (copyrightandtechnology.com) and program chair of the Copyright and Technology conferences. I have spoken at other conferences on five continents (including the World Economic Forum in Davos, Switzerland) and guest lectured at several universities and law schools on rights technologies-related subject matter.

6. I have consulted to several technology vendors, content owners (including film studios, record labels, and publishers), and service providers on the selection and deployment of rights technologies. I have also advised on the buying, selling, and licensing of patents in digital watermarking and related subject matter. I have consulted to or testified before public policy bodies in the United States and Europe on this subject matter, including the U.S. Copyright Office, Federal Trade Commission, National Academies, Business Software Alliance, and European Commission.

7. My experience in litigation concerning rights technologies includes consulting regarding the following litigations:

- *Intertrust Technologies v. Microsoft* (patent dispute related to DRM);
- *A&M v. Napster* (music copyright dispute);
- *Z4technologies v. Microsoft and Autodesk* (patent dispute related to software antipiracy technology);
- *Lewis v. Eatsleepmusic Corp (Yahoo!)* (patent dispute related to DRM in digital music services);
- *Digital Reg of Texas v. Hustler* (patent dispute related to DRM in Internet video services);
- *Perfect 10 v. Giganews* (copyright dispute related to digital images);
- *API v. Facebook* (patent dispute related to data antipiracy technology); and
- *Achates Reference Publishing v. Microsoft* (patent dispute related to software antipiracy technology).

8. Of particular relevance to the issues discussed in this declaration, I have considerable experience with digital watermarking technology, which (as mentioned above) involves marking digital media, such as video, audio, and still images, with information that can be extracted later. I have consulted to one of the leading vendors of digital watermarking technology and several other companies on applications for and monetization of intellectual property and technology in this area.

9. My *curriculum vitae* is attached to this declaration as Exhibit 1.

10. I am being compensated at my typical rate of \$555 per hour for consulting, \$695 per hour for testimony and \$300 per hour for non-working travel, to provide independent technical advice and assistance in this case. My compensation is in no way related to or conditioned on the outcome of any aspect of this case.

11. I have been asked to provide my opinion and analysis regarding certain inquiries from the Court made in the First Markman Ruling. Specifically, whether the Court's construction of the term "markings" as "a change to at least one readable property of a medium" is sufficient and complete. In this regard, I have been asked to offer an opinion on whether the construction of "markings" should be expanded to include (1) the change must take the form of readable content, and (2) the readable content must be added to the medium.

Materials Reviewed

12. I have reviewed for purposes of this declaration the following:

- The '633 Patent;
- The prosecution history of the '633 Patent, including the cited prior art references;
- Amended Complaint;
- Joint Claim Construction Statement;
- Opening Claim Construction Brief of Plaintiff Medien Patent Verwaltung AG;
- Defendants Warner Bros. Entertainment Inc.'s and Technicolor Inc.'s Responsive Claim Construction Brief;
- Defendant Deluxe Entertainment Services Group Inc.'s Phase One Claim Construction Brief ("Deluxe Brief");
- Reply Claim Construction Brief of Plaintiff Medien Patent Verwaltung AG;
and
- First Markman Ruling.

Summary of Opinions

13. The opinions I express herein can be summarized as follows:

- The Court's construction of the term "markings" as "a change to at least one readable property of a medium" is a sufficient and complete definition of the term as that term is used in the specification and claims of the '633 Patent.
- Including the additional concept of "the change must take the form of readable content" to the construction of the term "markings" alters the definition in an improper and misleading way that is inconsistent with plain and clear language of the '633 Patent.
- Including the additional concept of "the readable content must be added to the medium" to the Court's construction of the term "markings" improperly limits the formation of "markings" in a manner that is inconsistent with the teachings of the '633 Patent.

Explanation of Language Used in the '633 Patent

14. In the following paragraphs, I provide definitions and explanations for some of concepts that are relevant to a proper understanding of the language in the '633 Patent, and, in particular, to an understanding of the meaning of the claim term "markings." First, I compare and contrast the concepts of "information" and "content" as defined in the '633 Patent. Second, I explain the concepts of "read," "readable" and "unreadable," also as defined in the '633 Patent.

"Information"

15. As used in the '633 Patent, the term "information" describes a property of a medium that is recognized and interpreted for the purpose of being reproduced, i.e., made perceptible to listeners or viewers. For example, the specification states that "[t]he read-out information is then reproduced optically, acoustically, optically and acoustically combined, or in another perceivable way." ('633 Patent, at column 1, lines 18-20). Similarly, the specification of the '633 Patent states that "[t]he information which is contained on the medium can be

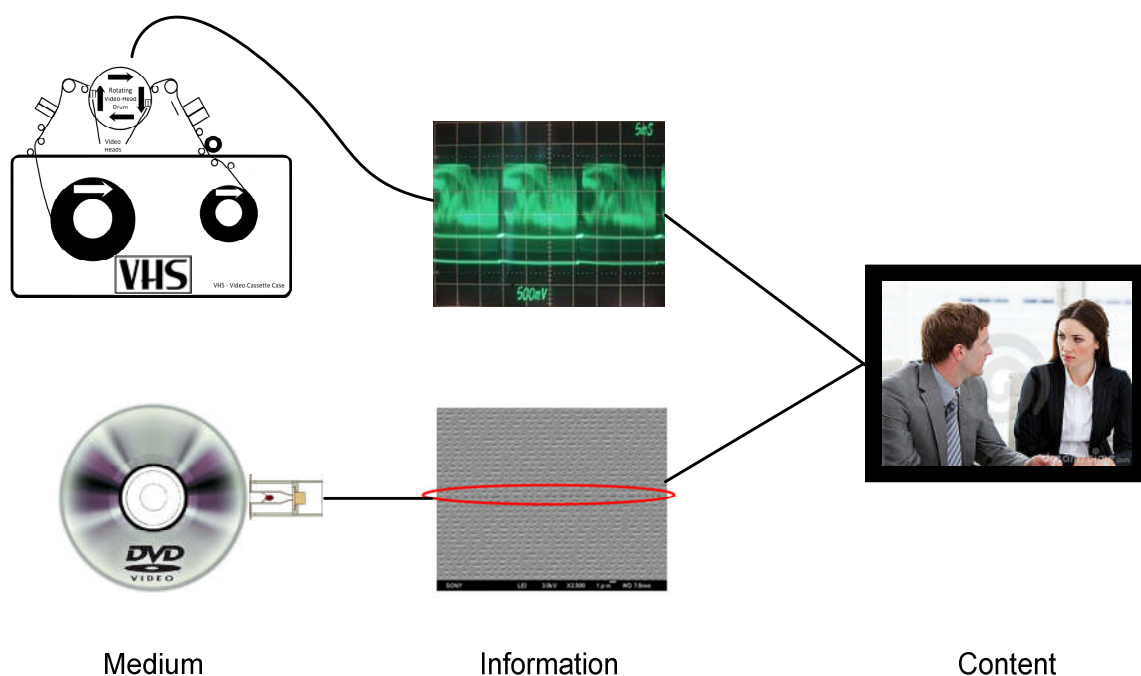
reproduced (i.e., played back) optically, acoustically, optically and acoustically combined, or in another way. The information intended for reproduction can therefore be sound information or picture (image) information.” (‘633 Patent, at column 1, line 64 – column 2, line 1). The specification of the ‘633 Patent further explains that information on the medium can be one or both of analog or digital information. (‘633 Patent, at column 2, lines 4-10).

16. The specification of the ‘633 Patent distinguishes between “markings” and “information intended for reproduction.” For example, “the markings can be formed in such a way that they can be read out together with the information intended for reproduction.” (‘633 Patent at column 2, lines 27-29, emphasis added). The Court has construed “markings” to be “a change to at least one readable property of a medium.” (First Markman Ruling, page 4). However, recording information on a medium meets the same definition as forming markings, i.e., it can include changing the magnetic, mechanical or optical properties of the medium. (‘633 Patent at column 2, lines 29-32). In other words, markings are a type of information, and the process of forming markings is thus a process of combining one set of information (the markings) with another (the information intended for reproduction).

“Content”

17. In the context of the ‘633 Patent, “content” is a listener’s or viewer’s perception of information when it is reproduced. The ‘633 Patent uses this term only once throughout the entire specification and nowhere in the claims. The specification states: “The analog and digital information can correspond to each other. In other words, the analog and digital information can be provided redundantly and the content can agree.” (‘633 Patent at column 3, lines 34-36, emphasis added). Although “content” appears only once in the ‘633 Patent, the patentee’s use of the word in this sentence is sufficient to define it intrinsically, and more particularly, to distinguish “information” from “content.” Therefore content is not the same as “information,”

i.e., that which is recorded on the medium. Analog information, for example on a VHS tape, is clearly a different form from digital information, for example on a DVD. Likewise, with reference to Figure 4 of the '633 Patent, the information on the digital sound track of the celluloid film is a different form from the information on the analog sound track of the film. The '633 Patent is simply stating that analog and digital information can “correspond” or “agree.” That is, they can be said to correspond or agree if a human perceives them the same way once they have been reproduced by suitable equipment.



Declaration Figure 1: VHS videotape and DVD containing different types of information that are both perceived as the same content.

18. Declaration Figure 1 illustrates the distinctions among media, information, and content. The left portion of Declaration Figure 1 shows a VHS videotape and a DVD, each of which is a *medium*. The VHS tape is read by a rotating video head, which reads analog *information* encoded magnetically on the tape and produces a signal like that shown to the right of the VHS tape. The signal can be decoded and fed to a video monitor, which would then show *content*, in this case a video image that is perceived by a viewer. Analogously, the DVD shown

in Declaration Figure 1 contains digital *information* that is read out (by a laser diode) to produce a digital signal. The information on the DVD can be decoded and reproduced as *content* that is *perceived* identically to the image produced from the VHS tape. In this case, the content on the two media can be said to correspond or agree.

19. As another example, consider a newspaper article: the information in print (ink on paper) is not the same thing as the information online (pixels on an LCD screen), but the content of the article is the same to a person who reads it, regardless of which medium she reads it on.

20. I note also that the ‘633 Patent teaches marking the medium in such a way as to alter the *perception* of the information (i.e., the content) minimally or not at all: “The markings can be formed on the medium in such a way that there is little or no interference with the perception of the reproduced information by an audience.” (‘633 Patent at column 3, lines 4-6, emphasis added). This is further confirmation that markings constitute information, as opposed to content.

“Read”; “Readable”; and “Unreadable”

21. “Read” in the context of the ‘633 Patent means to “recognize the information recorded on the medium.” This process can be magnetic (as with VHS tapes), mechanical (as with vinyl records), or optical (as with DVDs or the optical sound track of a celluloid film). In any of these processes, a “read-out device” (the term used in the ‘633 Patent, such as at column 8, line 13) detects the information. Subsequently, the detected information can be reproduced and presented in human perceptible form (i.e., as “content”) such as by video screen, projector, or loudspeaker. In Declaration Figure 1 above, the read-out devices for VHS tape and DVD are the rotating video head and laser diode respectively.

22. If the process described above in paragraph 21 succeeds in detecting the information, then the information is said to be “readable.” If such a process cannot detect the information, then the information is said to be “unreadable.”

23. The ‘633 Patent teaches ways of making information unreadable:

[T]he digital sound tracks 30, 32 and the time code track 40 at the locations adjacent to the markings 14 of the optical sound track 20 are removed, or reading out was prevented at these locations ... For this purpose, speck-like changes 34, 36, 38 and 42 were made in the two digital sound tracks 30, 32 and the time code track 40 by means of a laser. Alternatively, stripe-like changes may be made by scratching, cutting or the like. ... making the tracks 30, 32, 40 unreadable at the locations 34, 36, 38 and 42 by mechanical means (by nicking, scraping, etc.), could also be considered.

(‘633 Patent at column 7, line 63 – column 8, line 10). Figure 4 of the ‘633 Patent illustrates the concept of making information unreadable.

24. Another illustration of making information unreadable is shown below in Declaration Figure 2 in the context of a DVD.

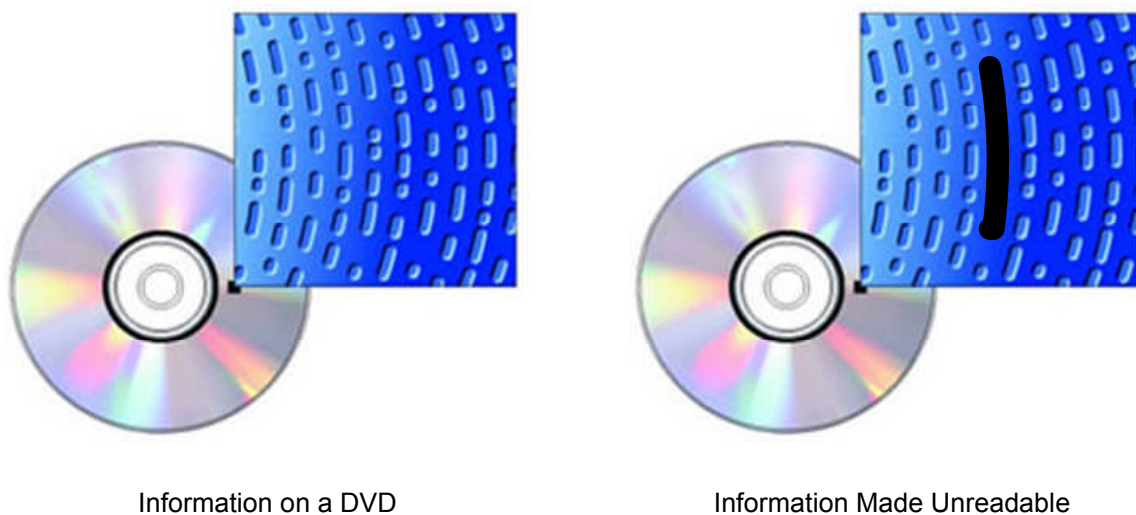


Figure 2: Information on a DVD can be made unreadable by defacing the medium.

25. As a simplified example, Declaration Figure 2, above, shows blow-ups of the information encoded on DVDs. The image on the left illustrates information on a section of the

DVD in its original state. The image on the right illustrates the same section of the DVD after a portion of the section has been impaired in a manner such as that described in the ‘633 Patent (as quoted in the preceding paragraph). The information on the impaired portion of the DVD would then be unreadable.

26. The ‘633 Patent teaches that the same information can be recorded on digital and analog tracks where the analog track is provided as a backup for the digital track in case the digital track is unreadable: “The analog sound track is read out only if a read-out device (e.g., a film projector) does not allow the tracks to be read out, or if the tracks are dirty, defective or otherwise unreadable. In other words, the optical sound track is often used as a ‘fallback solution’.” (‘633 Patent at column 7, lines 57-62, figure numerals omitted). With this redundant arrangement, the patent then teaches deliberately making the digital track unreadable to force the reading device to switch from the digital track to the analog track, which includes markings:

The effect of the absence or illegibility of digital sound information or time code information at the locations 34, 36, 38, and 42 is that the read-out device falls back on the optical sound track 20 at the locations 34, 36, 38, and 42 and reads out the analog information which is formed there. Simultaneously with the analog information, the sequence of markings 14 (as described above) is also read out. Reading out one or both of the digital sound tracks 30, 32 as well as the time code track 40 is therefore deliberately prevented, to cause the compulsory reading out (and compulsory reproduction) of the marking sequence 14.

(‘633 Patent at column 8, lines 11-21).

27. On page 5 of the First Markman Ruling, the Court inquires as to whether “there is any way that it is possible to change a ‘readable’ property in an ‘unreadable’ way.” As discussed above, changes to a readable property of a medium are the way information is put onto the medium. Because the ‘633 Patent teaches that information is a property of a medium that can be read, I interpret “readable property” to mean “readable information.”

28. The ‘633 Patent recites the formation of “unreadable digital information” by “optical properties of the medium . . . are subsequently changed” (claim 4) and “the film medium . . . has subsequently changed optical properties” (claim 12). This is entirely consistent with my understanding that the ‘633 Patent teaches “changing a readable property of a medium so that it becomes unreadable” (see above). This is also clearly distinct from “changing a readable property of a medium in an unreadable way” as stated in the First Markman Ruling.

Inclusion of “The Change Must Take the Form of Readable Content”

29. In the First Markman Ruling, the Court has construed the term “marking” as “a change to at least one readable property of the medium.” (First Markman Ruling, page 4). The Court then inquires as to whether its construction of “marking” needs to be expanded to include the concept of “the change must take the form of *readable content*.” (First Markman Ruling, p. 4, emphasis in original).

30. In my opinion, the addition of “the change must take the form of *readable content*” confuses the concepts of “content” and “information” and is therefore inconsistent with the meanings of those words as set forth in the specification of the ‘633 Patent. As discussed in detail above, “content” is particularly defined by the patentee’s use of the word in the ‘633 Patent specification as perception of information reproduced from a medium by a listener or viewer. The process of marking a medium disclosed in the ‘633 Patent has nothing to do with *content*; it has to do with *information*. “Content” (i.e., how the resulting marked information is perceived when reproduced), on the other hand, has nothing to do with the process of forming markings on the medium. (Recall once again that the word “content” appears nowhere in the ‘633 Patent claims.) In illustrative terms, information has to do with the center part of Declaration Figure 1 above, not the right part.

31. The specification of the ‘633 Patent does not teach or even imply that markings are “readable content.” Such an interpretation would impart to “content” a meaning that it does not have in the ‘633 Patent. Indeed, every reference that Deluxe cites in its claim construction brief to support this argument actually contains the phrase “information intended for reproduction,” not “content” (See, Deluxe Brief at pp. 13-17, referring to the ‘633 Patent at column 2, lines 41-43; column 2, lines 27-29; column 6, lines 15-17; column 2, lines 48-55; column 2, lines 11-20; and column 2, lines 55-57). “Content” is not “information intended for reproduction.” Rather, “content” is “a listener or viewer’s perception of the information when it is reproduced.” The patentee merely uses the phrase “intended for reproduction” to distinguish information in the form of markings from information originally recorded (or to be recorded) on the medium, i.e., information to be reproduced and ultimately perceived as content.

32. In my opinion, this is not just a terminological quibble. It goes to the heart of the Court’s inquiry. Consistent with the meaning of “content” as explained above, “content,” by definition, cannot be added to the medium.

33. Deluxe’s argument of “adding to the content” appears to rest on statements in the patent that marked content may at times be reproduced at a higher volume than unmarked content. For example:

- “The volume of the markings is usefully at least 5 dB, and preferably at least 10 dB, above the background volume level of the reference information.” (‘633 Patent at column 8, lines 56-58; Deluxe Brief, p. 16); and
- “In order for the markings to have a ‘volume’ that exceeds the unmarked reference sound information, they must be comprised of ‘readable content added to the medium’ and cannot simply be a deletion or erasure of content.” (Deluxe Brief, p. 17).

34. However, volume is a property of perception, i.e., of content, not of the information contained on the medium. Deluxe's argument therefore is unsupported by the intrinsic evidence because it is not what the patent teaches regarding the process of forming markings.

35. Instead the patent teaches the process of marking as one of changing the "information intended for reproduction" – i.e., the center part of Declaration Figure 1, above. The patent states: "The formation of the markings can include a change of magnetic, mechanical or optical properties of the medium. A simultaneous change of several of these properties of the medium is also possible." ('633 Patent at column 2, lines 21-25). This confirms the construction of marking as "a change to at least one readable property of the medium," given that information is a property of a medium (see definition of "information" above) and that information must be "readable" (see definition of "readable" above) in order to be reproduced.

Inclusion of "The Readable Content Must be Added To The Medium"

36. In my opinion, adding to the Court's already sufficient and complete construction of the term "marking" the concept that "the readable content must be added to the medium" is contrary to the clear teachings of the '633 Patent, not only for the reasons above with respect to "readable content," but also for the additional reason that it improperly requires that markings be formed on the medium solely by the act of "addition" – a word that appears nowhere in the '633 Patent (nor do the words "add," "adding," or "added"). A detailed review of the intrinsic evidence shows that the '633 Patent does not place any such limitation on the manner in which markings are formed. In several instances, the '633 Patent explains that markings may be formed in a variety of ways:

- “The markings can be formed in very varied ways. The formation of the markings can include a change of magnetic, mechanical or optical properties of the medium.” (‘633 Patent at column 2, lines 21-23).
- “The markings can be formed by mechanical operations on the medium or by a non-contact method. Non-contact formation of markings is possible, for instance, using a laser.” (‘633 Patent at column 2, lines 33-35).
- “The markings 14 which are formed in the area of the optical sound track 20, for instance subsequently mechanically or using a laser, can be interpreted as a change to the optical properties of the celluloid film.” (‘633 Patent at column 6, lines 38-42).

37. Based on the teachings of the ‘633 Patent, it is my understanding that the act of forming a marking on a medium can involve a technique that results in a *change* to a readable property of the medium, such as a magnetic, mechanical or optical property. Consistent with this, it is my further understanding that the intrinsic evidence fully supports a construction that a marking can be formed by the process of addition, omission, erasure, removal, or another suitable technique.

38. The prosecution history of the ‘633 Patent further supports my understanding. During prosecution, an Office Action was issued on July 27, 2006 by the United States Patent and Trademark Office (“USPTO”) in which some of the then-pending claims were rejected over International Patent Publication No. WO 01/35163 A1 to Wheeler et al. (“Wheeler Publication”). The July 27, 2006 Office Action and the Wheeler Publication are attached to this Declaration as Exhibits 2 and 3, respectively.

39. I have reviewed the Wheeler Publication, which has a priority date of November 12, 1999, and is entitled “A System For Providing Pre-Processing Machine Readable Encoded Information Markings In A Motion Picture Film.” The Wheeler Publication teaches that:

In accordance with one embodiment of the invention, the technique of **laser ablation of either the backside or emulsion side coatings of a motion picture film can be utilized to write the machine readable encoded information** (e.g., bar-code) in a manner that can be read in the camera according to the requirements outlined above. A high energy laser, e.g., can be used to write a standard (e.g., USS 128) bar-code by ablating away either the emulsion layer or the backside, remjet layer. If written on the backside of the film, the laser will ablate away the carbon black containing remjet antihalation layer in a position between the perforation and outer edge of the film. This will leave a one or two dimensional bar-code or grey scale pattern resulting in minus density bar-code lines between the high density carbon based remjet coating. The difference in density between the low (ablated lines) and high (remaining remjet coating) density areas shall be sufficient in order to provide a proper signal to noise ratio for a reader mounted in the pre-exposure film path of the camera to accurately read and interpret the bar-code.

* * *

Another embodiment of this invention is to ablate the emulsion side coating of the photographic film with the same type of laser device in film manufacturing. Similarly, the ablation of the emulsion to the base layer will result in a density difference between the low (ablated) and high (emulsion) density portions such that the code may be read in a transmitted reader.

(Wheeler Publication at pp. 13-14, emphasis added)

40. The term “ablate” is not defined intrinsically in the Wheeler Publication. The dictionary meaning of “ablate” is “to remove.” (*See, e.g.,* Exhibit 4 - Merriam-Webster’s Collegiate® Dictionary, Tenth Ed., 1993). Therefore, in rejecting claims in the ‘633 Patent on grounds of anticipation by the Wheeler Publication, the Examiner recognized that the claimed process of marking as taught in the ‘633 Patent may involve removal of information. Accordingly, any construction of the term “marking” that permits only the addition of “content”

is inconsistent with express teachings of the '633 Patent together with the understanding of the scope of the claimed invention as expressed by the USPTO.

Conclusion

41. Based on my review of the intrinsic evidence, it is my opinion that construction of the term "marking" as "a change to at least one readable property of the medium" is a sufficient and complete definition of the term and is entirely consistent with the express teachings of the '633 Patent.

42. It is my further opinion that expanding the construction of the term "marking" to include either or both of the concepts of (1) the change must take the form of readable content; and (2) the readable content must be added to the medium is inconsistent with the teachings of the '633 Patent and its prosecution history.

I declare under the penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed this 6th day of February, 2012 at New York, New York.

By:


William R. Rosenblatt

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on February 6, 2012, a true and correct copy of the foregoing DECLARATION OF WILLIAM R. ROSENBLATT ON BEHALF OF PLAINTIFF MEDIEN PATENT VERWALTUNG AG AND IN RESPONSE TO THE COURT'S FIRST MARKMAN RULING DATED JANUARY 6, 2012 and attached EXHIBITS 1 – 4 were served to all counsel of record via the Court's CM/ECF system and via electronic mail as follows:

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